

REMARKS

Introductory Comments

Reconsideration of the above-identified application in view of the foregoing arguments is respectfully requested.

Claims 44-48, 50 and 52-55 are pending and under consideration. Claims 1-43, 49, 51 and 56-58 are canceled. Claims 44, 46, 50 and 52-57 have been amended. Specifically, claims 44, 46, 50, 52 and 53 have been amended to delete SEQ ID NOS: 1-9 and language referring to complete complements and degenerate coding sequences of SEQ ID NOS: 1-9, 12 and 13. Claims 50 and 53 have been amended to change the word "comprising" to "consisting". Finally, claims 54 and 55 have been amended to delete the language referring to the complete complements. No new matter was added as a result of these amendments.

Rejection of Claims 54, 55 and 58 Under 35 U.S.C. §112, Second Paragraph

Claims 54, 55 and 58 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, Examiner asserts that the phrase "the complete complements thereof" for amino acid sequences is improper since there is no such thing as complements of amino acids. Accordingly, Applicants have amended the claims by deleting this phrase. Additionally, the Examiner states that claim 58 is improper since the claim is drawn toward a polynucleotide while the claimed SEQ ID NOS are for polypeptides. Applicants have canceled claim 58.

Accordingly, Applicants respectfully request withdrawal of the rejection of claims 54 and 55 under 35 U.S.C. § 112, second paragraph in view of the amendment.

Objection of Claim 53 Under 37 CFR 1.75

Claim 53 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 51. Applicants have canceled claim 51 and the objection is now moot.

Rejection of Claims 46-51, 53, 56 and 57 Under 35 U.S.C. §112, Second Paragraph

Claims 46-51, 53, 56 and 57 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, Examiner asserts that “the claims recite ‘degenerate sequences thereof’ without reference to a protein sequence which is being encoded, as SEQ ID NO:1-9, 12 and 13 are all polynucleotide sequences.” Accordingly, Applicants have amended the claims to delete “and degenerate sequences” with respect to the claimed polynucleotides. Therefore, the rejection is now moot.

Rejection of Claim 52 Under 35 U.S.C. §112, Second Paragraph

Claim 52 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, Examiner asserts that it is improper to list polynucleotides in a Markush group for polypeptides. Applicants have deleted the recitation of “and the complete complements and degenerate coding sequences of SEQ ID NOS: 1-9, SEQ ID NO: 12 and SEQ ID NO: 13” from the claim. Therefore, the rejection is now moot.

Rejection of Claims 52, 54, 55 and 58 Under 35 U.S.C. §112, First Paragraph

Claims 52, 54, 55 and 58 are rejected under 35 U.S.C. §112, first paragraph, because the specification, while being enabling for a method of producing a polypeptide comprising expressing the polynucleotides encoding SEQ ID NOS: 24-28, does not reasonably provide enablement for a method of

producing a polypeptide comprising expressing the complete complement of the polynucleotides encoding SEQ ID NO:24-28. Examiner alleges that the specification does not enable any person skilled in the art to which it pertains, or with which it is mostly connected, to use the invention commensurate in scope of these claims.

Applicants have amended the claims to delete the phrase “the complete complement” with respect to the claimed polynucleotides and polypeptides. Therefore, this rejection is now moot.

Rejection of Claims 50, 51, 53 and 57 Under 35 U.S.C. §112, First Paragraph

Claims 50, 51, 53 and 57 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one of ordinary skill in the relevant art that the inventor(s), at the time of the application was filed, had possession of the claimed invention.

The Examiner states that the claims read on genomic sequences, including any full-length gene which comprises each of the sequences. The Examiner states that this rejection would be overcome if the word “consisting” is recited without open ended terms such as “containing” and “having”. Applicants have amended the claims as suggested by the Examiner. Applicants thank the Examiner for her suggestion. This rejection is now moot.

Rejection of Claims 50-53 Under 35 U.S.C. Section 102(e)

Claims 50-53 are rejected under 35 U.S.C. Section 102(e) as being anticipated by Yu *et al.*, U.S. Patent No. 5,733,748(herein “Yu”). The Examiner states that since these claims have open-ended language, the claims read on the larger sequences of Yu which contain the claimed sequences. Applicants have amended the claims to delete the open-ended language as suggested by the Examiner. Therefore, this rejection is now moot.

CONCLUSION

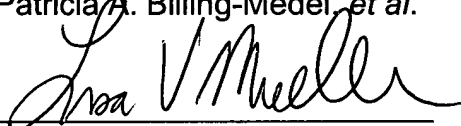
Applicants respectfully submit that the claims comply with the requirements of 35 U.S.C. Sections 112 and 102. Accordingly, a Notice of Allowance is believed in order and is respectfully requested.

Should the Examiner have any questions concerning the above, she is respectfully requested to contact the undersigned at the telephone number listed below. If the Examiner notes any further matters which the Examiner believes may be expedited by a telephone interview, the Examiner is requested to contact the undersigned.

If any additional fees are incurred as a result of the filing of this paper, authorization is given to charge deposit account no. 23-0785.

Respectfully submitted,

Patricia A. Billing-Medel, *et al.*

A handwritten signature in black ink, appearing to read "Lisa V. Mueller", is written over a horizontal line.

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